



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Response and Restoration
Silver Spring, Maryland 20910

13 August 2026

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ID #: CRM-FC26-052

Received via email dated 8/17/2026.

Memorandum For: Commonwealth of the Northern Mariana Islands (CNMI) Division of Coastal Resources Management (DCRM), Bureau of Environmental and Coastal Quality (BECQ)

Re: Coastal Zone Management Act (CZMA) Compliance for the NOAA-funded Pacific Coastal Research & Planning – Abandoned and Derelict Vessel (ADV) and Large Marine Debris Removal Partnership between the U.S. Territories and Freely Associated States (FAS) of Micronesia – Typhoon Sinlaku Amendment

NOAA's Marine Debris Program (MDP) will be providing grants to Pacific Coastal Research and Planning (PCRP) for marine debris removal activities related to land-based and vessel/port-related debris generated by Typhoon Sinlaku in the coastal waters of the Northern Mariana Islands (CNMI). The goal of the proposed work is to remove debris that poses ongoing and potential threats to sensitive resources, including resources and uses of the coastal zone.

By way of this email, NOAA MDP is requesting Federal Consistency review of the proposed marine debris removal project, including review of the applicable enforceable policies, review and concurrence that the project is consistent to the maximum extent practicable with the DCRM coastal management program, and review of the proposed Best Management Practices (BMPs) to be applied during marine debris removal operations (see attachments below). The project description, effects determination, and proposed BMPs are provided below.

Project Background

In 2023, NOAA MDP provided funding to Pacific Coastal Research & Planning (PCRP) to remove abandoned and derelict vessels (ADVs) from nearshore waters of Rota, CNMI and derelict fishing gear (DFG) from shallow waters of Palau (Ref No: PLN23-009). In 2025, NOAA MDP provided additional funding to PCRP to remove additional DFG and ADVs from Palau and the Federated States of Micronesia. Using remaining funds from these grants, PCRP aims to remove land-based and vessel-related debris from nearshore waters of Rota, Tinian, and Saipan, CNMI in response to the damage caused by Typhoon Sinlaku in April 2026.



Project Description

Pacific Coastal Research and Planning - Expanding Large Marine Debris Removal Coordination throughout Micronesia: A 2.5 Million Square Mile Collaboration Spanning CNMI, Palau, and Pohnpei. (Award #NA25NOSX999C0033-T1-01) – Typhoon Sinlaku Amendment

This project aims to remove typhoon-related debris from nearshore habitats throughout islands of the Commonwealth of the Northern Mariana Islands (CNMI). Pacific Coastal Research and Planning (PCRP), a non-profit organization based out of CNMI, aims to conduct typhoon-related debris removals across three islands in CNMI, including Rota, Tinian, and Saipan. Typhoon Sinlaku swept through the region in April 2026, leaving vast amounts of debris, particularly relating to land-based facilities, port infrastructure, and damaged vessels. This project will improve the safety of nearshore areas by removing storm-generated debris in these areas. The aim of this project is to protect both local communities and sensitive habitats from storm-related impacts.

Expanding upon previous large scale debris removal efforts in CNMI, Palau, and the Federated States of Micronesia, PCRP plans to remove typhoon-related debris from nearshore areas of Rota, Tinian, and Saipan. Specifically, this project will remove land-based debris that got swept into nearshore habitats as well as port- and vessel-related debris that is anticipated to remain in the environment following other federally-funded removal efforts (conducted by the Emergency Support Functions [ESF]). Land-based debris may include construction and demolition materials, housing materials (e.g., tin roofs, storm shutters, etc.), and other types of debris. Removal efforts will be focused on debris hot spots and top priority areas as identified by local partners. Particular areas of interest are likely to focus on lagoons, nearshore areas, marinas, and ports, including Saipan Lagoon, the southern shoreline of Saipan, the southern Tinian shoreline, and the ports and marinas of all three islands, notably the Port of Saipan and Saipan's commercial marina "Outer Cove." Informed by similar removal efforts, PCRP anticipates that most removal operations will occur within 100 ft of the shoreline. Experienced contractors will be hired for removal efforts and will employ the use of lift bags, ropes, and straps to hoist debris; debris will then be hauled to shore for disposal. Collected debris will be sorted and disposed of accordingly, prioritizing recycling if possible. Debris that cannot be recycled may be disposed of at island landfills or dumps.

Applicable Enforceable Policies

Northern Mariana Islands Administrative Code (NMIAC) Chapter 15 10 CRM Rules and Regulations

- § 15-10-105: APC Permits for Minor and Other Developments
- § 15-10-301: General Standards for all CRM Permits
- § 15-10-303: Standards to Avoid Adverse Impacts
- § 15-10-305(a)-(d)&(f)-(k): General Criteria for CRM Permits
- § 15-10-315: Criteria; Areas of Particular Concern; Lagoon and Reefs
- § 15-10-335: Specific Criteria; Areas of Particular Concern; Shorelines
- § 15-10-345: Specific Criteria; Areas of Particular Concern; Coastal Hazards

CRM Act of 1983, CNMI PL 3-47, 2 Commonwealth Code (CMC) §§ 1501-1543

- 2 CMC § 1511: Coastal Resources Management Policy
- 2 CMC § 1513: Coastal Resources Management Program: Territorial Jurisdiction

Air and Water Quality Standards of the CNMI, Per 15 CFR § 923.82(e)

- NMIAC Chapter 65-130, Water Quality Standards
- NMIAC Chapter 65-10, Air Pollution Control Regulations

Commonwealth SWM Act of 1989; PL 6-30, as Amended

- 2 CMC § 3513: Definitions [All Sections]
- 2 CMC § 3517: Recycling [All Sections]
- 2 CMC § 3518: Prohibited Activities [All Sections]

Commonwealth Environmental Amendments Act of 1999; PL 11-103, §6, §8

- PL 11- 103, §6, §8; which amended the following:
 - 2 CMC § 3513(m): “Debris staging areas”
 - 2 CMC § 3518(b)

Effects on the Coastal Zone and Consistency with Enforceable Policies

The proposed action aims to remove debris that was generated by Typhoon Sinlaku from coastal waters of CNMI, focusing on debris roughly within 100 ft of the shoreline. The types of debris that will be targeted for removal include land-based debris such as construction and housing materials as well as debris relating to damaged port infrastructure and damaged vessels. Debris items will be lifted to the water’s surface and then hauled to shore for disposal. The debris removal efforts across the three islands will occur in two types of Areas of Particular Concern: Lagoon & Reef APC and Shoreline APC. Coastal Hazard APCs surround all nearshore areas of Tinian and vast stretches of Rota, overlapping with the action area in these islands as well. Several Marine Protected Areas (MPAs), managed by the Division of Fish and Wildlife, overlap with the action area as well.

Due to the location and nature of the proposed action, impacts from debris removal efforts may occur on resources and uses of the coastal zone, including natural resources, sensitive areas, water quality, air quality, cultural resources, aesthetic quality, and recreational and commercial activities. Removal of typhoon-related debris will require human activity, vessel use, and a variety of equipment in coastal waters of Rota, Tinian, and Saipan.

Natural resources of the coastal zone may be affected by vessel activity, physical removal of debris via equipment usage, and human activity. Mobile wildlife may be deterred or drawn to project activities occurring in nearshore waters. Slow moving or immobile species may be temporarily affected by minor disturbances to the surrounding environment. For example, lifting debris items may disturb seafloor sediments, causing temporary increases in turbidity and decreases in water clarity. Removal efforts are unlikely to directly disturb natural resources due to the implementation of best management practices (BMPs). These BMPs will guide removal efforts to minimize disturbance to the surrounding environment. Moreover, NOAA MDP is consulting with the US Fish and Wildlife Service (USFWS) and NOAA’s National Marine Fisheries Service (NMFS) to satisfy requirements for Section 7 of the Endangered Species Act (ESA) and requirements for the Magnuson-Stevens Fisheries Management Act (MSA).

Areas of Particular Concern, as designated by DCRM, are considered particularly sensitive areas of CNMI’s landscape, requiring special management requirements. The proposed action will overlap with Lagoon & Reef APCs, Shoreline APCs, and Coastal Hazard APCs. Thus, permits for work in these

areas will be acquired as necessary by the grantee. Marine Protected Areas (MPAs) are also designated in coastal areas of Rota, Tinian, and Saipan to protect natural and cultural resources from damage and degradation. The action area overlaps with the following MPAs: Sasanhaya Bay Fish Reserve on Rota; Tinian Marine Reserve Boundaries on Tinian; Laulau Bay Sea Cucumber Sanctuary, Forbidden Island Marine Sanctuary, Tank Beach Trochus Sanctuary, Bird Island Marine Sanctuary, and Bird Island Sea Cucumber Sanctuary on Saipan. Impacts from the proposed action on APCs and MPAs are anticipated to be beneficial rather than harmful to the characteristics of these areas due to the removal of potentially harmful marine debris. Removing marine debris will be achieved without the removal of species and resources that these areas aim to protect.

Water quality and air quality may be impacted by vessel activity required for the proposed action. Disturbance to water and air resources as a result of the proposed action will remain consistent with general impacts relating to vessel activity in the area. The proposed action will not result in a substantial increase in vessel activity in the region. Moreover, disturbances to air and water resources will be temporary. All regulations pertaining to water quality and air quality will be adhered to throughout the course of the project and permits will be acquired as necessary.

Cultural resources are another potential resource of the coastal zone that may be impacted by the proposed action. Cultural resources are present in coastal waters of CNMI, particularly on the island of Saipan. Saipan's cultural resources include World War II shipwrecks that resulted from the Battle of Saipan. Additional sites listed on the National Register of Historic Places may overlap with the proposed action, particularly sites or districts that overlap with shorelines and nearshore waters of Rota, Tinian, or Saipan. Typhoon-generated debris items will be distinguishable from cultural resources and are unlikely to require ground disturbance to aid removal efforts. Removal of debris from nearshore waters will benefit cultural resources by removing a potential threat to these resources. For example, loose debris left in the environment can shift with high wind or wave energy and collide with cultural resources, potentially damaging these resources. NOAA MDP is consulting with CNMI's Division of Historic Preservation under the Department of Community & Cultural Affairs to satisfy Section 106 requirements under the National Historic Preservation Act (NHPA). Consultation with the Division of Historic Preservation will ensure that cultural resources are protected throughout project activities.

One resource of the coastal zone, the aesthetic quality of CNMI's coastal waters, will directly benefit from the proposed action. The proposed action will entail temporary vessel activity in nearshore environments of Rota, Tinian, and Saipan to remove typhoon-generated debris items from these waters. When Typhoon Sinlaku swept through the region, large quantities of land-based debris, vessel debris, and destroyed port infrastructure were deposited into nearshore waters. Debris of this nature dampens the aesthetic quality of coastal environments, particularly as it accumulates and degrades over time. The proposed action aims to ameliorate this impact by removing such debris. Removal efforts will maximize their impact by focusing on removing debris from accumulation hotspots as identified by local partners.

The proposed action may produce temporary, minor impacts on commercial and recreational uses of the coastal zone at the forefront of the project but will ultimately have long term benefits on these uses of the coastal zone. Vessel activity under the proposed action will temporarily occupy nearshore waters to identify, remove, and transport storm-related debris. Vessels will follow established vessel

traffic routes in the region, observing local regulations and implementing BMPs to minimize impacts to the surrounding environment. That being said, the presence of work vessels may temporarily interfere with local fishing, commercial, and recreational activities due to their temporary occupation of nearshore waters that support such activities while removal activities are underway. Work vessels will move away from each location upon removal of debris in that area, ultimately freeing up space for recreational and commercial activities to resume. Debris items that litter the coastal environment may present hazards or obstructions themselves to navigation, recreation, and fishing. Because the proposed action aims to remove debris items that present hazards to these uses of the coastal zone, the proposed action will ultimately benefit these activities.

In addition to completing consultations for other laws and regulations as noted above, PCRCP will obtain the following permits or letters of concurrence for the proposed action: DCRM Shoreline Area of Particular Concern and Lagoon & Reef Area of Particular Concern permits; Division of Environmental Quality 401 Water Quality Certificate; and Department of Lands & Natural Resources letter of clearance for submerged lands.

Based on the applicable enforceable policies, the project-related impacts described above, and BMPs that will be implemented (see attachments below), NOAA MDP has determined that the proposed action will ultimately benefit the resources and uses of CNMI's coastal zone. Minor, temporary impacts from debris removal efforts will be offset by a long-term benefit of removing hazardous debris from nearshore waters of the coastal zone. That being said, NOAA MDP finds that the activities to be carried out under the grant awards are consistent to the maximum extent practicable with the enforceable policies of the CNMI Coastal Zone Management Program.

Please find the following files attached for your review and use:

Attachment 1. NOAA MDP – PCRCP Typhoon Sinlaku – Project Maps

Attachment 2. NOAA MDP – PCRCP Typhoon Sinlaku – BMPs for Debris Removal

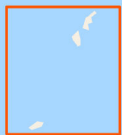
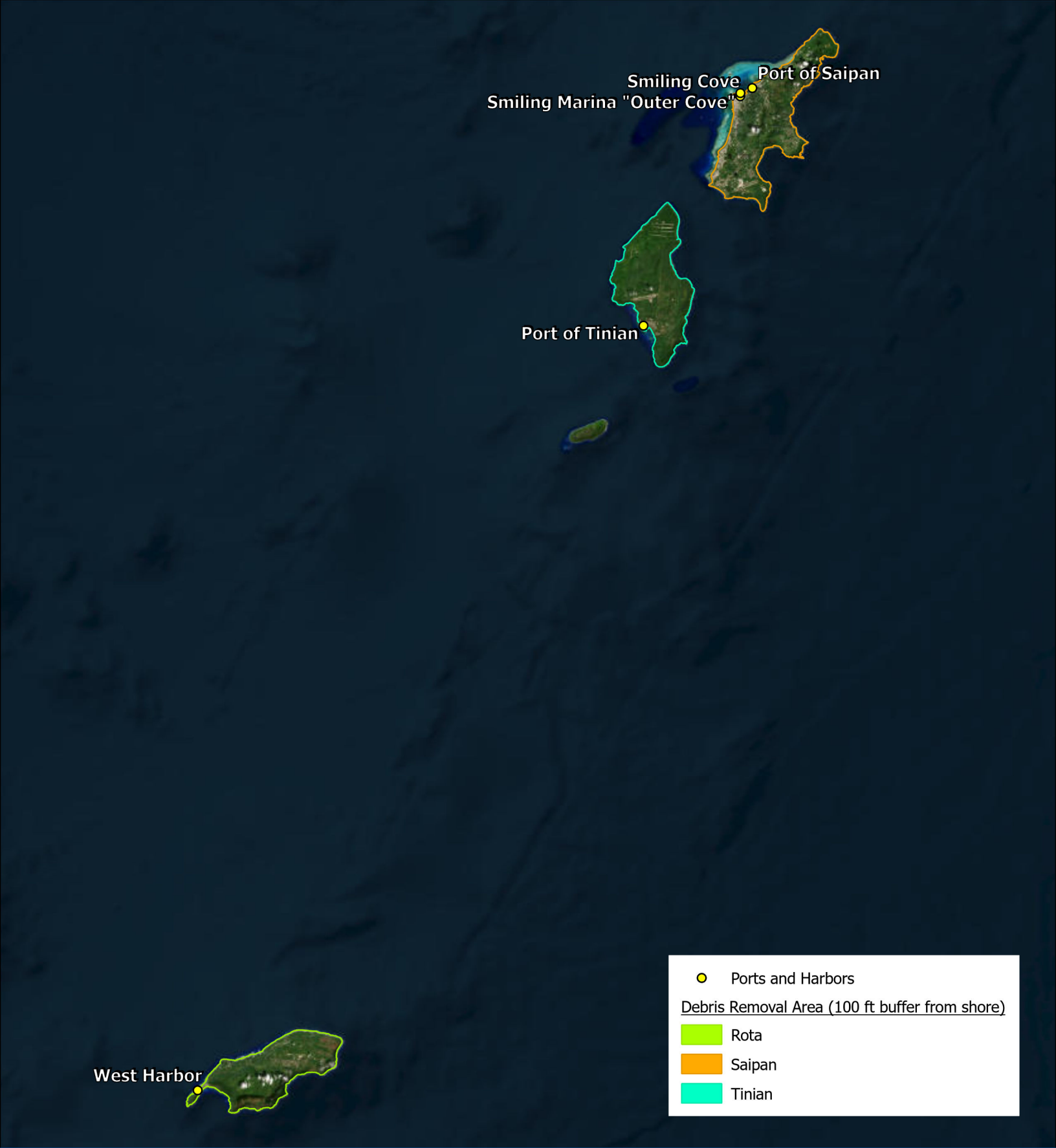
We appreciate your input and look forward to your response.

Thank you very much,

Mark Manuel

Mark Manuel
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Office of Response and Restoration
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Email: mark.manuel@noaa.gov

*Please confirm receipt of this email with Cori Carlston (cori.carlston@noaa.gov) and copy her on any correspondence. Feel free to give her a call 571-271-3037 if you have any questions. We look forward to your reply.



GUAM

PCRTP Typhoon Sinlaku Amendment - CNMI Project Locations

Data Sources: NOS, NMFS, NPS, USCB, USFWS
Basemap credits: Earthstar Geographics, Esri, TomTom, Garmin, FAO, NOAA, USGS, USFWS

0 8 15 Miles

NOAA National Ocean Service
Office of Response and Restoration
Marine Debris Program



7/10/2026

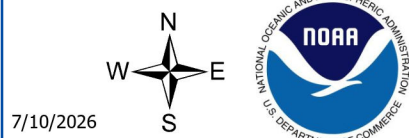




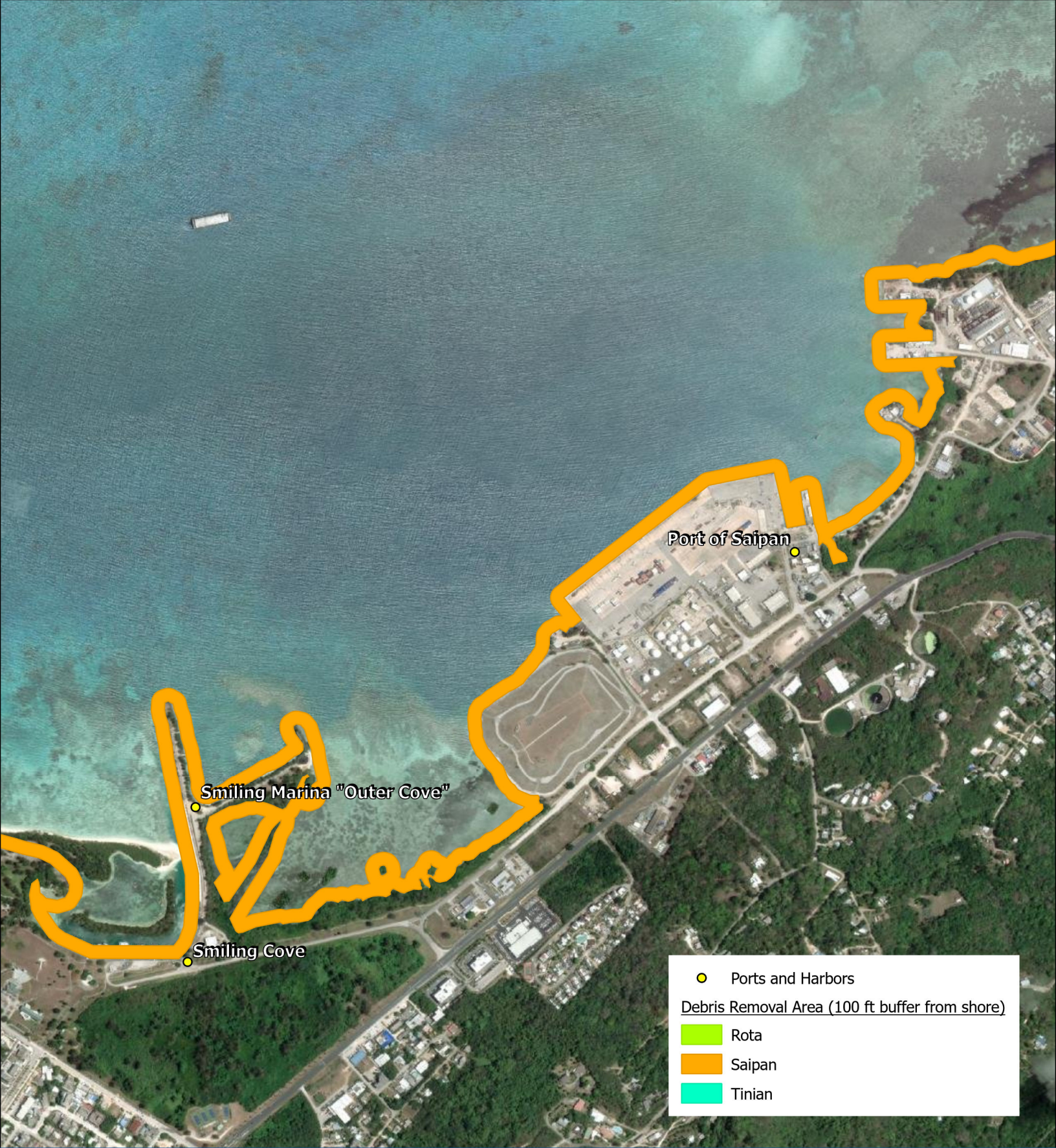
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0 1 3 Miles
NOAA National Ocean Service
Office of Response and Restoration
Marine Debris Program



7/10/2026



● Ports and Harbors

Debris Removal Area (100 ft buffer from shore)

■ Rota

■ Saipan

■ Tinian



PCRP Typhoon Sinlaku Amendment - CNMI Project Locations

Data Sources: NOS, NMFS, NPS, USCB, USFWS
Basemap credits: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community, BECQ, Esri, TomTom, Garmin, FAO, METI/NASA, USGS, USFWS

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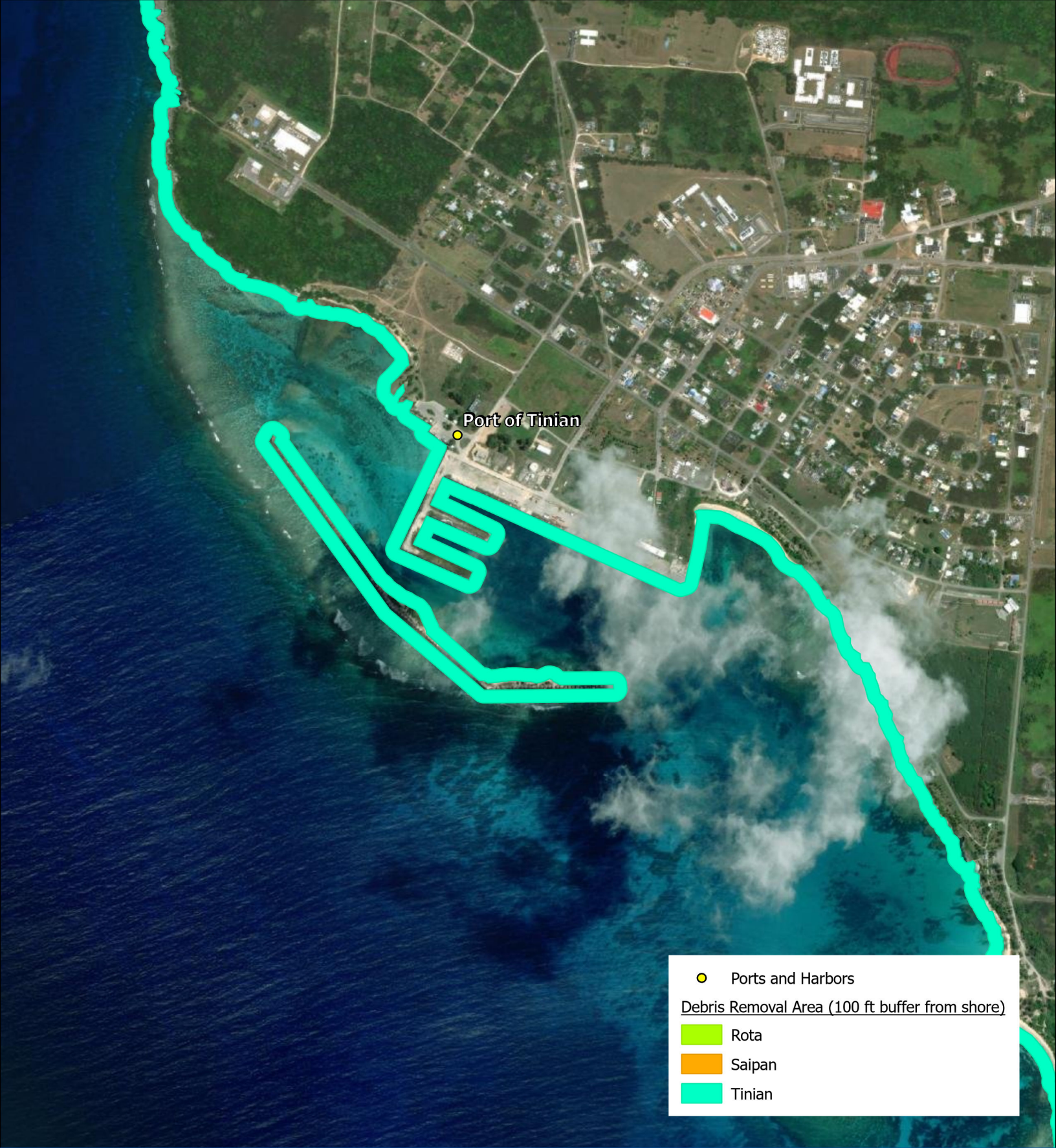


PCRP Typhoon Sinlaku Amendment - CNMI Project Locations

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Basemap credits: Earthstar Geographics, Esri, TomTom, Garmin, FAO, NOAA, USGS, USFWS

0 1 3 Miles
NOAA National Ocean Service
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0 0.1 0.3 Miles
NOAA National Ocean Service
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7/10/2026





● Ports and Harbors

Debris Removal Area (100 ft buffer from shore)

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0 1 3 Miles
NOAA National Ocean Service
Office of Response and Restoration
Marine Debris Program

7/10/2026



● Ports and Harbors

Debris Removal Area (100 ft buffer from shore)

■ Rota

■ Saipan

■ Tinian

PCRP Typhoon Sinlaku Amendment - CNMI Project Locations

Data Sources: NOS, NMFS, NPS, USCB, USFWS

Basemap credits: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, USFWS

0 0.1 0.2 Miles

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ENVIRONMENTAL BEST MANAGEMENT PRACTICES (BMPs) – CNMI ONLY

Award: Pacific Coastal Research and Planning - Expanding Large Marine Debris Removal Coordination throughout Micronesia: A 2.5 Million Square Mile Collaboration Spanning CNMI, Palau, and Pohnpei. (Award #NA25NOSX999C0033-T1-01) – Typhoon Sinlaku Amendment

Time of Year Restrictions: *(all per US Fish and Wildlife Service)*

Restriction Time Frame	BMPs	Reasoning
March-July	No vehicle use on or modification of the beach/dune environment during the peak sea turtle nesting or hatching season (peak nesting occurs March-July).	Minimize impacts to nesting/basking ESA-listed sea turtles.
	If possible, removal of debris from sea turtle nesting beaches will occur outside of the peak nesting season (March-July).	
	If debris removal activities occur on nesting beaches during the peak sea turtle nesting season (March-July), field crews must have a biologist familiar with sea turtles conduct a visual survey of the project site before activities begin to ensure no nests or basking/nesting sea turtles are present.	

1. PERMITTING AND PERMISSIONS

- ☐ Coordinate where necessary with the appropriate state and Federal management agencies when working within public lands or waters, including National Estuarine Research Reserves, State Aquatic Preserves, State Natural Areas, National Wildlife Refuges, National Parks, State Parks, or other public lands agencies.^[G]
- ☐ A U.S. Army Corps of Engineers (USACE) permit may be required if activity involves dredging or excavation, the discharge of dredged or fill material, or involves structures or work impacting the navigability of a waterway. Contact the USACE Honolulu Regulatory District for specific federal permitting guidance at 808-835-4303 or <https://www.poh.usace.army.mil/>^[G]
- ☐ If an activity is not covered by a USACE permit in this region, a permit from the CNMI government may be required for major or minor dredge and fill activities or for activities that may result in impacts to water quality through potential discharges. See state-specific permitting information below:
 - ☐ **CNMI:** If an activity is not covered by a USACE permit or other permits already acquired for ADV removals in CNMI, a permit from the CNMI Bureau of Environmental and Coastal Quality (BECQ) may be required. The BECQ can be contacted at (670) 664-8500/01 or (670) 664-8300. Additional information on permitting can be found at www.crm.gov.mp or www.deq.gov.mp.^[G]

2. FIELD TRAINING AND SURVEYS

- ☐ All personnel associated with the project will be instructed about the potential presence of species and critical habitat protected under the ESA and MMPA, as well as EFH protected under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). All on-site project personnel will be responsible for observing work areas and activities for the presence of protected species and habitats. All personnel shall be advised that there are civil and criminal penalties for taking ESA-listed species or marine mammals. To determine which protected species and critical habitat may be found in the project area, please review the relevant Protected Species Lists at: <https://www.fisheries.noaa.gov/pacific-islands/endangered-species-conservation/marine-protected-species-mariana-islands>^[1] and <https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=MP&stateName=Northern%20Mariana%20Islands&statusCategory=Listed>^[2]
- ☐ For all project types, all relevant personnel (e.g. vessel and equipment operators, monitors, crewmembers, volunteers) must be aware of the appropriate minimum distance that needs to be maintained with any protected species that may be encountered. The operation of any vessel or deployed research or construction equipment must cease immediately if an ESA-listed species is observed within the minimum avoidance distance, and will not resume until the ESA-listed species has departed the area on its own.^[1]

- ☐ Any interaction with an ESA-listed or proposed species or critical habitat, or sighting of an injured, trapped, entangled, stranded, or dead ESA animal must be reported to the appropriate NMFS office, along with any relevant state agencies and networks. See the Reporting Resources Table (Table 3).^[1]
- ☐ **Corals:** Be aware of the potential presence of ESA-listed corals. ESA-listed coral surveys should be conducted in marine debris removal sites within appropriate habitats. If ESA-corals are present, follow all coral related BMPs, with the added requirement that impacts to ESA-listed corals and critical habitat must be avoided.^[1]
- ☐ **Micronesian Megapodes:** Be aware of the potential presence of Micronesian megapodes on sand beaches. Surveys should be conducted in marine debris removal sites within appropriate habitats to determine the presence of Micronesian megapodes and their nests. In appropriate habitat, follow all megapode related BMPs.^[2]
- ☐ **Sea Turtles:** Have a biologist familiar with sea turtles conduct a visual survey of the project site to ensure no basking sea turtles are present.^[2]

3. SITE ACCESS, PROTECTION, AND CLEANUP

- ☐ Minimize the disturbance footprint when removing marine debris.^[2]
- ☐ Avoid and minimize disturbance to wildlife, fisheries, and sensitive habitats (shorelines and water bottoms) including all protected species and critical habitat.^[6]
- ☐ Obey all exclusion fencing and signs established for the protection of wildlife and sensitive habitats. For beaches with closed areas for nesting shorebirds, do not hang, lean, or pile any materials (e.g., backpacks, jackets, marine debris) within 10 feet (ft; 0.3 meters [m]) of the edge of the closed area.^[1]
- ☐ Personnel will use existing beach access locations and transit alongshore on the lower beach to avoid and minimize disturbance of beach and dune vegetation and natural wrack deposits.^[1]
- ☐ After the beach has been surveyed, agency personnel or their authorized delegates will direct work crews along the established travel corridor.^[1]
- ☐ Personnel should coordinate, and work as closely together as is feasible, and limit repetitive transits to and from work areas, to minimize disturbance.^[1]
- ☐ Marine debris field activities shall be accomplished using only the minimum number and size of equipment and persons needed to accomplish the project objectives to minimize disturbance of habitat (especially when working within critical habitats). Hand crews should be used where possible to further minimize the use of equipment.^[1]
- ☐ In shoreline and shallow nearshore areas with sensitive habitats, consider land-side access and removals from roads, bulkheads, or other developed or disturbed areas for marine debris removal, where feasible.^[1] Equipment and material staging areas should be located outside of areas of native vegetation and known endangered species habitats.^[2]
- ☐ Ingress and egress corridors for vehicle and equipment operations and marine debris removal will minimize impact to natural habitats. Care must be taken to restrict equipment/vehicles to roadways and roadbeds and away from vegetated areas where possible.^[2]
- ☐ Where equipment or crews must access marine debris sites in or across sensitive habitats, use shallow draft vessels, specialized equipment with low pressure/flotation tires or tracks, equipment mats, walk boards, or other comparable methods to minimize disturbance, including equipment and foot traffic, as applicable.^[1]
- ☐ Temporary stakes/buoys (with appropriate lines, see entanglement below) shall be used to mark the ingress/egress path, if applicable, to assist in staying on course and to avoid the areas with the greatest extent and quality of sensitive habitats.^[1]
- ☐ If altered (e.g., if it is necessary to excavate debris or if equipment rutting occurs), beach topography shall be re-established in all areas to the natural beach profile/grade at the end of work each day. Re-establishing beach topography includes raking of tire, track, and keel ruts; filling pits or holes

where debris or beach sediment were removed (i.e., cores, rings/quadrats).^[1]

- ☐ If any sites are identified during marine debris removal that require substantial ground disturbance, leave the fully or partially buried marine debris item in place and contact the appropriate State Historic Preservation Office (SHPO) before proceeding. The SHPO will review the project area and provide notification if historic or archaeological sites are present or are likely present. If no historic sites are present or are unlikely to be present, the activity may proceed with inclusion of the unanticipated discoveries procedure (following bullet). If sites are present or are likely present, the SHPO will provide recommendations to avoid or minimize potential effects to the sites. Contact information for the respective SHPOs is below.^[3]
 - ☐ **CNMI:** Department of Community and Cultural Affairs, Historic Preservation Office: (670) 664-2120
 - ☐ Mertie Kani, Historic Preservation Officer: mkani.cnmihp@gmail.com
 - ☐ Katherine Bermudez, Staff Archaeologist: kbermudez.cnmihp@gmail.com
- ☐ Fueling of project-related vehicles and equipment should take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.^[2]
- ☐ All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP – see <https://www.fws.gov/policy/A1750fw1.html>) can help to prevent attraction and introduction of non-native species.^[2]
- ☐ Remove any project-related debris, trash, or equipment from the beach or dune if not actively being used.^[2]
- ☐ Do not stockpile project-related materials in the intertidal zone, reef flats, sandy beach and adjacent vegetated areas, or stream channels.^[2]
- ☐ All trash resulting from project activities will be removed from the area as appropriate or disposed of properly in covered trash receptacles.^[1]
- ☐ Debris shall be properly disposed of in appropriate facilities in accordance with applicable Federal, state, local and/or territorial requirements. All bagged debris from the removal site will be removed before departing each day to minimize wildlife interactions and possible loss of collected debris. If operationally necessary, debris can be secured and stored at a higher elevation staging area and removed at a later date.^[1]

4. VESSEL OPERATIONS

- ☐ Vessel and crew safety should never be compromised.^[1]
- ☐ All vessels will follow marked channels and/or routes using the maximum water depth whenever possible.^[1]
- ☐ Every vessel shall, at all times proceed at a safe speed so that proper and effective action can be taken to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions (33 CFR § 83.06 Safe speed [Rule 6]).^[1]
- ☐ All vessels associated with marine debris removal and research activities shall operate at “idle speed or no wake” at all times while operating in water depths where the draft of the vessel provides clearance of less than 4 ft (1.2 m) from the bottom, and after a protected species has been observed in and has departed the area.^[1]
- ☐ When weather conditions reduce visibility to 1 mile or less, reduce vessel speed to 10 knots or

less.^[1]

- ☐ Barges will travel at 12 knots or less.^[1]
- ☐ The vessel operator and crew will maintain a vigilant watch for all protected species and slow down or stop or alter course of the vessel, as appropriate and regardless of vessel size, to avoid striking any protected species during activities as well as transits. A visual observer aboard the vessel will monitor a vessel strike avoidance zone around the vessel (reference Table 1 and Table 2), to ensure the potential for vessel strike is minimized, according to the parameters stated below.^[1]
- ☐ Visual observers monitoring the vessel strike avoidance zone can be either third-party protected species observers or crewmembers, but crewmembers responsible for these duties will be provided sufficient training or have sufficient expertise to distinguish protected species from other phenomena and broadly to identify a protected species to broad taxonomic group (e.g., as a large whale or other marine mammal).^[1]
- ☐ All vessel operators must watch for and avoid collision with species protected under the ESA and MMPA and maintain the appropriate minimum distance for any animals that are sighted (refer to Table 1 and Table 2). Vessel operators must avoid potential interactions with protected species, follow approach regulations, and operate in accordance with the [NOAA Marine Life Viewing Guidelines](#).^[1]
- ☐ When protected species are sighted while the vessel is underway, try to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until they have left the area.^[1]
- ☐ If a marine mammal is sighted while on a vessel, the vessel operator must take action as necessary to maintain an appropriate minimum separation distance (reference Table 1 and Table 2). While the vessel is underway, if a marine mammal approaches to within the minimum avoidance distance or enters the pathway of the vessel, the vessel operator must reduce speed and shift the engine to neutral, not engaging the engines until the animal(s) is clear of the vessel's path and the appropriate minimum separation distance has been established. If the vessel is stationary, the vessel operator will not engage engines until the animal(s) has moved out of the vessel's path and beyond the relevant separation distance. This does not apply to any vessel towing gear or any vessel that is navigationally constrained.^[1]
- ☐ When safety allows, vessels will reduce speed to 18.5 km per hour (10 knots) or less when mother/calf pairs or groups of marine mammals are observed.^[1]
- ☐ If mother and calf pairs or large groups of cetaceans are observed near the vessel, the vessel will attempt to route around the animals (from behind), maintaining the appropriate minimum distance (reference Table 1 and Table 2).^[1]
- ☐ If sea turtles are sighted, either on-land or in-water, an appropriate minimum distance must be maintained (reference Table 1 and Table 2) between the individual/s and the vessel. If sea turtles approach the vessel within the minimum distance, engines are to be placed in neutral until the animal safely departs.^[1]
- ☐ Move away from animals at the first sign of disturbance or agitation.^[1]
- ☐ Operators of vessels must be qualified to operate the equipment to avoid: vessel grounding; scarring by the bow, keel, propeller, or skeg, and propeller washing in sensitive habitats (e.g., corals, hard bottom, giant clams, mangroves, and seagrasses); anchoring or spudding on corals, hard bottom [mud and sand], and seagrasses [native, non-invasive], and; shading of seagrasses with barges and large vessels for more than a few days.^[1]
- ☐ Operators of vessels will move barges and large vessels from over seagrasses and reposition over bare mud or sand substrates when not conducting marine debris removal activities. Barge staging areas will be located outside of sensitive habitats (e.g., seagrass).^[1]
- ☐ Operators of vessels must use existing mooring balls when available.^[1]
- ☐ If spudding on seagrasses cannot be avoided, divers will fill spud holes to grade with clean sand from nearby sources to minimize impacts.^[1]

- ☐ Ensure engines are well maintained to avoid release of petroleum products in reef areas.^[1]
- ☐ Make sure vessel sewage is disposed in a way that does not affect the nutrient balance of the reef ecosystem.^[1]

Table 1. Avoidance Distances for Marine Debris Field Operations – on land

Wildlife	Distance or Speed Restrictions
Sea turtles nesting or basking on land	Basking: 17 yd (15 m) Nesting: 50 yd (46 m)
Sea turtle nests	10 ft (3 m)

Table 2. Avoidance Distances for Marine Debris Field Operations – in water

Wildlife	Distance or Speed Restrictions
Marine mammals (mom and calf/pup) in water	54.7 yd (50 m)
Dolphins or porpoises in water	50 yd (46 m)
Sea turtles in water	50 yd (46 m)

5. ADV/DEBRIS REMOVAL

- ☐ Where possible, overall timing of activities will be limited to periods when protected species are least likely to be in the project area (e.g., predetermined windows of time when protected species are not expected to be utilizing the project area) to minimize any potential impacts to living marine resources. Where possible, actions will avoid times when protected species are particularly vulnerable (e.g., nesting, mating, spawning, hauling out) to avoid potential adverse impacts to that species. Timing of activities will also consider forecasted weather and seasonal climate to avoid potential adverse impacts (e.g. timing removals for the dry season). For planned activities that cannot be conducted outside of times when species are in the area, NOS OR&R would contact the relevant NMFS or USFWS officials for any necessary avoidance and minimization measures to avoid impacts to the species.^[1]
- ☐ All marine debris removal activities must be conducted during daylight hours.^[G] If equipment must be left staged and lit overnight, lights will be masked or red lights will be used.^[1]
- ☐ Marine debris removal activities shall be limited to marine debris that poses a threat to navigation, human health and safety, and/or natural resources (flora, fauna, and their habitats), such as, but not limited to derelict vessels, derelict fishing gear, and various construction/demolition/vegetative debris.^[G]
- ☐ Removal of marine debris may require visual confirmation (e.g., observation and assessment, including use of divers, swimmers, and cameras when applicable) that the item can be removed without causing further damage to natural resources.^[G]
- ☐ If the detection of species is not possible during certain weather conditions (e.g., fog, rain, wind), then in-water operations will cease until weather conditions improve and detection is again feasible.^[G]
- ☐ Avoid and minimize disturbance to sensitive intertidal and benthic habitats including: mangroves, tidal flats, seagrasses, hard-bottom reefs, corals, coral reefs, and giant clams. If marine debris cannot be removed without causing harm to surrounding habitat (especially as it relates to ESA-listed corals, critical habitat PCEs, or EFH), the item will be disassembled as much as practicable so that it no longer can accidentally harm or trap species.^[1]
- ☐ Cutting up or otherwise disassembling large debris in place into smaller pieces for removal, in part or whole, using less intrusive equipment or hand crews when applicable, shall be considered, to avoid and minimize sensitive habitat impacts.^[1]
- ☐ Minimize the impact footprint of heavy equipment by working from one location by grappling, hoisting, or lifting marine debris.^[1]
- ☐ Avoid dragging marine debris across or onto sensitive habitats. Marine debris items will be hoisted or reloaded. Use of lift bags, rollers, equipment mats, and other methods will be evaluated to

minimize impacts, such as bottom scarring and soil rutting and compaction. ^[1]

- ☐ Marine debris will be lifted straight up and not be dragged through seagrass beds, coral reefs, coral, giant clams, or hard-bottom habitats. Trawling also cannot be used as a means of marine debris removal or a research activity in areas with corals or seagrass. ^[1]
- ☐ Do not trawl or use grapples for debris removal without a pre-survey or side scan sonar assessment of the targeted removal area. Removal operators will have appropriate training on the use of side scan sonar and removal methods, and safety procedures. This technique will not be used on coral reefs, seagrass beds, or other sensitive areas. Grapples or trawls when used as a removal tool are never dragged around coral or hard bottom areas, seagrass beds, or areas where EFH or critical habitat may occur, although grapples may be used in these areas if instead of being dragged, are carefully attached to the targeted marine debris (e.g., by divers). ^[1]
- ☐ Prior to hoisting, refloating, and removing marine debris, or other marine debris fieldwork activities, crews will evaluate the immediate area and determine an ingress/egress path that will have the least impact on sensitive habitats. This will include using divers when applicable, particularly in coral, hard-bottom, giant clams, and seagrass habitats. Review of habitat maps, bathymetric charts, aerial photography, remote sensing images, and other appropriate data will also be used. ^[6]
- ☐ Turbidity:
 - ☐ Dredging should be avoided whenever possible. Dredging can occur if it is the best solution to remove the debris safely, avoiding dredging unnecessarily will help minimize the potential impacts of turbidity on essential fish habitat (EFH). ^[1]
 - ☐ Turbidity must be monitored and controlled, especially in sensitive areas, such as critical habitat for corals or other ESA-listed or proposed species. Monitoring turbidity should be done during multi-day work and may include measuring nephelometric turbidity unit. ^[1]
 - ☐ Avoid and minimize digging, excavation, jetting, use of pump hoses on sediments, and similar methods in and/or near sensitive habitats. If such methods must be used, turbidity barriers shall be deployed, even when working on bare sand and mud bottoms (see turbidity control measures, above). When using these methods, permits may be required (see USACE and State permitting, above). ^[1]
 - ☐ Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. BMPs should be maintained for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site. ^[2]
 - ☐ If turbidity curtains are needed, then prior to in-water work, turbidity curtains must be installed as follows:
 - ☐ Install floating turbidity barriers with weighted skirts that extend to within 1 ft of the bottom around all work areas that are in, or adjacent to, surface waters. ^[1]
 - ☐ Use these turbidity barriers throughout construction to control erosion and siltation and ensure that turbidity levels within the project area do not exceed background conditions (i.e., the normal water quality levels from natural turbidity). ^[1]
 - ☐ Place turbidity curtains, booms, and other in-water equipment in a manner that does not entrap species within the construction area, or block access for them to navigate around the construction area, or block species entry to or exit from designated critical habitat. ^[1]
 - ☐ Monitor and maintain turbidity barriers in place until the authorized work has been completed and the water quality in the project area has returned to background conditions. ^[1]
 - ☐ Work that includes upland earth moving must install sediment control barriers to prevent upland sediments from reaching estuarine or marine waters; in addition, turbidity curtain requirements cannot be waived for any in-water project that moves or removes sediments (note that the U.S. Army Corps of Engineers [USACE] and/or State permits may

also be required in such instances, see above). If turbidity curtains are not feasible based on-site conditions such as currents or high wave action, additional NMFS ESA consultation may be required.^[1]

- ☐ Entanglement:
 - ☐ All in-water equipment (e.g., turbidity curtains, hard and sorbent booms) must be made of, and properly secured with materials that reduce the risk of entanglement of marine species.^[1]
 - ☐ Any in-water lines (rope, chain, and cable, including the lines to secure “seeded debris,” turbidity curtains, boom, or other interception device) must be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, must be enclosed in a plastic or rubber sleeve or tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line is allowed in the water.^[1]
 - ☐ Avoid deploying anchored items that do not employ stiff, taut, and non-looping anchor lines.^[1]
- ☐ An absorbent blanket or boom shall be immediately deployed on the surface of the water around any marine debris to be removed if fuel, oil, or other free-floating pollutants are anticipated or observed during the work.^[1]
- ☐ If reportable quantities of fuel, oil, or pollutants are released to the environment during removal operations, a National Response Center (NRC) report shall be filed with the US Coast Guard. See Table 3 for relevant contact information and guidance (in the Reporting Requirements section below).^[1]
- ☐ Collect all floating debris during in-water marine debris removal.^[2]
- ☐ SCUBA Diving:
 - ☐ If SCUBA and/or other use of compressed gas are required as a breathing medium (e.g., surface supplied air), it is the responsibility of NOAA for undertaken projects or a recipient organization to ensure that divers are trained to a level commensurate with the type and conditions of the diving activity being undertaken to be capable of exhibiting responsible dive practices to not injure divers, marine organisms, or cause unnecessary habitat impacts. The organization must have the capacity (appropriate insurance, safety policies, etc.) to oversee all proposed diving activities. All applicable Federal, state, and local laws and regulations pertaining to the type of diving being undertaken must be met. All diving activities must meet, or be specifically exempted from, the Occupational Safety and Health Administration (OSHA) guidelines. Assuming all other relevant safety conditions are satisfied, divers that are not advanced divers may perform simple activities, such as underwater surveys and removal of light objects. Advanced divers are divers with advanced diving training for the proposed tasks and in compliance with OSHA guidelines. Activities that will be performed only by advanced divers include but are not limited to the following:^[1]
 - ☐ Moving or lifting heavy objects, or using hand tools, weighing more than 25 pounds underwater;
 - ☐ Performance of underwater tasks requiring substantial physical exertion;
 - ☐ Use of lift bags; and,
 - ☐ Underwater removal of potentially entangling debris, such as nets, crab or lobster pots, or fishing line.
 - ☐ Snorkeling activities are similarly restricted in that snorkelers will complete only simple activities, such as surveys and removal of light, non-entangling objects unless they receive specialized training.^[1]
 - ☐ All personnel will be instructed about the potential presence of species protected under the ESA and that all on-site project personnel are responsible for observing for the presence of protected species and habitats.^[1]
 - ☐ During diving and snorkeling, efforts are taken to reduce disturbance to ESA-listed or proposed species and habitat.^[1]

- ☐ Maintain appropriate distance from ESA-listed or proposed species (reference Table 1 and Table 2).
- ☐ Divers and snorkelers will be capable of exhibiting responsible dive practices (e.g., proper buoyancy) such that they conduct activities in a safe manner and do not injure themselves, marine organisms, or cause unnecessary habitat impacts, especially to sensitive habitats such as coral reefs.
- ☐ Divers will secure all equipment so that it cannot drag or snag on corals or other sensitive habitats.
- ☐ Divers will minimize sediment disturbance due to their presence or use of equipment.
- ☐ Any interaction between a diver or snorkeler and an ESA-listed or proposed species or critical habitat, or sighting of an injured, trapped, entangled, stranded, or dead ESA-listed animal must be reported to the appropriate NMFS office. See Reporting Requirements below.^[1]
- ☐ Projects that involve the use of SCUBA are required to have a safety plan in place before any in-field work takes place.^[1]

State Historic Preservation Office (SHPO) Section 106 National Preservation Act

- ☐ Cease all activities involving ground disturbance, and immediately contact the appropriate State Historic Preservation Office (SHPO) if prehistoric, historic, and cultural artifacts that could be associated with pre- or post-Western contact periods in Micronesia are encountered at any time (and leave all artifacts in place). Marine debris removal activities shall not resume without verbal and/or written authorization from the appropriate SHPO. In the event unmarked human remains are encountered during marine debris removal activities, stop all work immediately and contact the appropriate SHPO.^[3]
- ☐ **CNMI:** Department of Community and Cultural Affairs, Historic Preservation Office: (670) 664-2120
 - ☐ Mertie Kani, Historic Preservation Officer: mkani.cnmihp@gmail.com
 - ☐ Katherine Bermudez, Staff Archaeologist: kbermudez.cnmihp@gmail.com

6. OTHER WILDLIFE CONSIDERATIONS

Sensitive Habitat Measures

- ☐ The removal of healthy trees to remove embedded debris will be avoided or minimized (avoid removal of mangroves).^[1]
- ☐ Mangrove trimming will be implemented as minimally as possible and unnecessary trimming avoided. Mangrove trimming will be limited to instances where trimming will lessen mangrove impacts during debris removal (e.g., trimming branches penetrating the hull of a derelict vessel or tangled in vessel rigging to prevent further breakage or tearing of branches or uprooting of the tree), or where trimming is necessary for temporary access or debris removal pathways. Mangrove prop roots and pneumatophores will not be trimmed or excessively trampled. Field operators are made aware of and follow state guidance on approved trimming methods and requirements.^[1]
- ☐ All impacts to native, non-invasive seagrasses will be avoided or minimized.^[1]
- ☐ All impacts to ESA-listed giant clams would be avoided or minimized.^[1]
- ☐ Avoid and minimize giant clam damage and entanglement with traps, line, and other gear when removing marine debris (i.e., derelict fishing gear) by using trained and certified divers.^[1]
- ☐ During diving operations around giant clams, divers would:^[1]
 - ☐ Maintain buoyancy control and avoid and minimize touching of giant clams, including with body or gear.
 - ☐ Minimize sediment disturbance in the vicinity of giant clams.
 - ☐ Secure all equipment so that it cannot drag or become entangled with giant clams;
 - ☐ Obey all local dive rules, regulations, and customs.

Coral Measures

- ☐ All impacts to corals and hard-bottom should be avoided and minimized to the extent practicable. To support this, coral and hard-bottom surveys will be conducted in marine debris removal or research sites to understand the types of habitat present and ensure any damage is avoided or limited.^[1]
- ☐ Impacts to two types of hard-bottom should be avoided, specifically defined as: (1) natural consolidated hard substrate that is suitable to support corals, coral larval settlement, reattachment, and recruitment of asexual coral fragments. These areas of hard-bottom or dead coral skeleton must be free from fleshy or turf macroalgae and sediment cover; and (2) nearshore and surf-zone, low-profile hard bottom outcroppings. This second type of hard-bottom habitat can be persistent or ephemeral, cycling through periods of exposure and covered by sand. It is an important developmental habitat for juvenile hawksbill and green sea turtles.^[1]
- ☐ Minimize damage to coral during removal of derelict fishing gear or other small marine debris located on or within corals by carefully cutting away and hand removing it from the coral. If marine debris is wedged among, embedded, or has been overgrown by coral, leave it in place to avoid further damage; however, loose pieces should be cut away when possible to decrease entanglement risks.^[1]
- ☐ Monofilament, rope or other entangling debris will be carefully cut loose from coral (ESA-listed or non-listed) so as not to cause further harm. Under no circumstance will line be pulled through coral since this could cause breakage of coral.^[1]
- ☐ During diving operations in support of marine debris removal or monitoring, divers should:^[1]
 - ☐ Maintain buoyancy control and avoid and minimize touching and body/gear contact with corals (except when coral relocation/restoration is authorized).
 - ☐ Minimize sediment disturbance in the vicinity of corals.
 - ☐ Secure all equipment so that it cannot drag or snag on corals.
 - ☐ Obey all local dive rules, regulations, and customs.

Coral Transplant Measures

If marine debris removal requires ESA-listed corals to be relocated, the following measures will be implemented:^[1]

- ☐ Tools and equipment that come in contact with the bottom must be soaked for 10 minutes in a 10% bleach solution (prepared within 12 hours of use and kept out of direct sunlight) before moving to new sites (following the field manual by Woodley et al. (2008) and Coral Disease Decontamination Protocol 2019).^[1]
- ☐ When transporting live coral during collections and/or transplantings:^[1]
 - ☐ Corals must be handled as little as possible.
 - ☐ Detached coral colonies must not be in contact with each other to prevent additional harm to their structures and tissue.
 - ☐ If a bucket or container is used for transportation and transportation will be above water (such as on a vessel to get from the removal site to the transplant site), the seawater must be routinely changed and kept shaded to avoid prolonged exposure to increased water temperatures.
 - ☐ Corals must not be stored overnight in transport containers.
- ☐ Avoid placing corals and any required equipment (e.g., tools, sensors, weights) on live bottom substrate.^[1]
- ☐ Monitor the health and condition of subject coral colonies for at least two weeks after conducting transplants. Any signs of bleaching, lesions, tissue loss (e.g., partial mortality), or mortality must be reported to NMFS (See Table 3 for relevant contact information and guidance).^[1]

Micronesian Megapode Measures

To avoid and minimize potential project impacts to the Micronesian megapode, the following measures will be implemented for activities on sand beaches:^[2]

- ☐ A biologist knowledgeable on the Micronesian megapode, including expertise in identification of the species and their nests, will survey the area to determine if it is occupied by a megapode.
 - ☐ If present, any individual megapode will be monitored throughout the duration of the project and workers will be informed of the last known location. Project activities will not occur until birds have left the area.
- ☐ If an active megapode nest is present, a 50-ft boundary will be clearly marked around the nest with guidance from the biologist, and activities will remain outside the boundary.

Sea Turtle Measures

- ☐ Adult sea turtles, crawls, nests, eggs, and hatchlings (including as they emerge from the nest and crawl to the sea), must be avoided during marine debris field activities.^[1]
- ☐ If possible, removal of debris from sea turtle nesting beaches will occur outside of the peak nesting season (March-July).^[2]
- ☐ No vehicle use on or modification of the beach/dune environment during the peak sea turtle nesting or hatching season (March-July).^[2]
- ☐ If debris removal activities occur on nesting beaches during the peak sea turtle nesting season (March-July), field crews must have a biologist familiar with sea turtles conduct a visual survey of the project site before activities begin to ensure no nests or basking/nesting sea turtles are present.^[2]
- ☐ If a sea turtle (either adult or hatchling) is observed, stay behind the turtle and avoid startling the animal or make excessive noise. Notify the appropriate sea turtle response personnel as necessary.^[1]
- ☐ If a basking sea turtle is found within the project area, cease all activities between the basking turtle and the ocean and cease all mechanical or construction activities within 100 feet until the animal voluntarily leaves the area.^[2]
- ☐ If sea turtle hatchlings are encountered, allow the hatchlings to crawl unobstructed to the water. Do not carry the hatchlings to the water. Notify the appropriate sea turtle response personnel as necessary.^[1]
- ☐ If an unmarked sea turtle crawl is encountered during or prior to debris removal or research activities, work crews must not disturb the integrity of the crawl or follow the crawl up the beach or into the dune/vegetation. Notify the appropriate sea turtle response personnel as necessary.^[1]
- ☐ Do not remove native dune vegetation.^[2]
- ☐ Any potential obstructions or entanglement hazards for sea turtles and hatchlings must be removed from the beach at the end of each day, this includes work vehicles, equipment, gear, lines, rigging, boom, etc.^[1]
- ☐ Upon locating a dead, injured, disoriented, or sick sea turtle, or if eggs, hatchlings, or nests are inadvertently excavated or otherwise disturbed during marine debris removal or research activities, immediately cease all work and notify the appropriate entities (See Table 3 for relevant contact information and guidance). Personnel may be required to remain on-site until stranding personnel arrive.^[1]
- ☐ If a sea turtle is entangled in a net, the animal will be retrieved and released as follows:^[1]
 - ☐ Slowly retrieve the net and avoid tugging or yanking motions
 - ☐ Avoid pulling the turtle up by the gear that is entangled it
 - ☐ Bring the turtle on board using a dip net
 - ☐ If the turtle cannot be disentangled easily from the net, carefully cut the net off the turtle using a blunt-sided line cutter and attempt to remove any gear attached to the turtle
 - ☐ If the turtle cannot be easily brought on board, try to work the turtle free from the net and use long-handled line cutters to cut the net and lines off of the turtle, if necessary.
 - ☐ Immediate notification must be made to the applicable Federal, state or territory resource agency. See Table 3 for relevant contact information and guidance.

- ☐ Sea turtles must be released with as little gear as possible remaining.^[1]

Nesting Sea Turtle Measures

- ☐ Nesting females, eggs, hatchlings, post-hatchlings (washbacks), and nests must be avoided at all times.^[1]
- ☐ All work activity, equipment, and personnel shall observe an appropriate buffer from marked sea turtle nests (reference Table 1 and Table 2).^[1]
- ☐ Avoid walking or driving equipment over a crawl so that a potential nest is not damaged.^[1]
- ☐ Field operators, especially those using heavy machinery, must be made aware of the potential for sea turtle nesting activity on all sand beaches, mixed sand and gravel (including coral rubble and shell) beaches, and gravel beaches throughout the project area, between March-July.^[1]
- ☐ Marked nests and nesting areas must be avoided during marine debris field activities or equipment staging. Any nest markings within the areas where marine debris field activities or equipment staging will occur (including access areas) shall be left in place. Marked nests in an area designated for these activities are typically delineated by stake and survey tape or string around the nest. Sometimes nests may not be marked, especially on crowded beaches, or may be difficult to identify. As such, coordinate with local wildlife staff about nesting activity prior to operations whenever possible.^[1]
- ☐ If work activity will occur near a marked nest or in the wrack line, agency personnel or their authorized delegates shall be onsite during debris removal. Generally, it is highly encouraged to coordinate with local sea turtle nesting coordinators.^[1]
- ☐ Avoid the use of shovels for removal or research activities on nesting beaches.^[1]
- ☐ Work shall only occur during daylight hours on nesting beaches.^[1]
- ☐ Sea turtles are susceptible to barriers on the beach and disturbance of the nest site by humans and predators. Minimize physical disturbance of beach material to reduce the likelihood of adverse impact to a sea turtle nest. Use animal-proof waste containers to minimize attraction of non-native predators to beach areas.^[1]
- ☐ Modify the timing of planned activities to ensure peak sea turtle nesting is avoided (generally March through July). In cases where timing overlap cannot be avoided, personnel must be aware of the potential for sea turtle interaction, able to identify sea turtle nests, or coordinate with local sea turtle monitoring crews.^[1]

Bird Measures

- ☐ Designate shoreline access points, staging areas, waste collections areas, and travel corridors away from known shorebird foraging and roosting areas and keep all personnel, vehicles, and equipment within those designated corridors to minimize disturbance to birds and beach topographic alterations.^[2]
- ☐ Do not block major egress points in channels, passes, and bays to avoid disturbance to natural coastal processes.^[2]
- ☐ Avoid deliberately flushing birds. If birds are flushed, calling loudly, acting alarmed, etc., move away from the area and observe a larger buffer distance to avoid and minimize disturbance.^[2]
- ☐ Prevent increase in lighting of native habitats during the bird breeding season (year-round; January – December).^[2]
- ☐ Avoid and minimize disturbance to seabird and water bird nesting sites and colonies, migratory and wintering shorebird concentrations, bird roosting sites, and other bird aggregation areas. Smaller offshore islands and shoreline areas may be nesting or roosting sites. Do not enter sites with active bird nesting colonies or roosts and maintain a minimum 300 ft buffer from nest sites, nesting colonies, and roosting aggregations. If birds are flushed, move away from the area and observe a larger buffer distance. If marine debris removal or research activities are likely to disturb nesting birds, contact USFWS and the State for further guidance.^[2]

7. REPORTING REQUIREMENTS

- ☐ Any interaction with an ESA-listed or proposed species or critical habitat, or sighting of an injured, trapped, entangled, stranded, or dead ESA-listed animal must be reported to the appropriate NMFS office, along with any relevant state agencies and networks. See Reporting Resources Table (Table 3) for relevant contact information and guidance.^[1]
- ☐ For all activities funded through a grant, contract, formal in-kind contributions, or carried out by NOAA, there are regular progress reporting requirements tied to the work. Such reports must include a summary of all in-water and on-shore activities associated with the project, and (if applicable) the results of any protected species monitoring conducted during the reporting period. With regards to reporting about interactions with ESA-listed or proposed species, reports at minimum will include: the date and time of animal observations, geographic coordinates of animals at their closest approach to the project site, species, numbers; age/size/sex categories (if determinable), and group sizes; number of animals observed (by species), and; observed animal distribution, behaviors and movement types versus project activity at time of observation.^[1]
- ☐ Resource agencies may require similar or additional reporting parameters, which will be in addition to and incorporated into the regular progress reporting requirements.^[1]
- ☐ As a NOAA MDP-funded partner, in addition to reporting to the relevant agencies here and in Table 3, all NOAA MDP-funded partners must also inform their NOAA MDP Technical Monitor about any ESA-listed or proposed species interactions as soon as possible.^[1]

Table 3. Reporting Resources

Scenario	Reporting Requirement
ESA-listed or proposed species is observed, exhibiting normal behavior	No reporting requirement. If operationally feasible, you may choose to include details of the observation in your routine progress reporting to NOAA. Such things may include: a summary of the work you were doing at the time of observation, the date and time of animal observation, geographic coordinates of animals at their closest approach to the project site, species, numbers; age/size/sex categories (if determinable), and group sizes; number of animals observed (by species), and; observed animal distribution, and behaviors and movement types.
Injured, trapped, entangled, stranded, or dead marine mammal, other ESA-listed species is observed	Notify the appropriate NMFS Regional Office (contacts found on the NMFS website) Notify the appropriate Marine Mammal Stranding Network Coordinator (for marine mammal injuries; contact information can be found on the NMFS website) Notify the appropriate regional and state-level stranding network number, as listed on the NMFS Report a Stranded or Injured Marine Animal website. You can also use NMFS's Dolphin and Whale 911 app to report a stranded marine mammal (iOS only) Notify the U.S. Coast Guard immediately via VHF Channel 16 (marine mammals, if encountered at sea) Personnel may be required to remain on-site until stranding personnel arrive. To aid agencies in determining how to respond to a stranded animal, take photos if possible and note the date/time, location of animal, species and number of stranded animals, description of the stranded animal's

Scenario	Reporting Requirement
	condition, event type (e.g., entanglement, dead, floating), and note the behavior of the animal if it is still alive.
Reportable quantities of fuel, oil, or pollutants are released to the environment during field operations	File a National Response Center (NRC) report with the US Coast Guard by calling 800-424-8802. The NRC is an emergency call center that fields initial reports for pollution incidents and forwards that information to appropriate Federal/state agencies for response.
ESA-listed or proposed species encountered as bycatch	Notify the appropriate NMFS Regional Office (contacts found on the NMFS website).
Any signs of bleaching, lesions, tissue loss (e.g., partial mortality), or mortality among <i>transplanted corals</i>	Notify the appropriate NMFS Regional Office (contacts found on the NMFS website).

---end---

Footnotes

- [G] General BMP
- [1] NOAA National Marine Fisheries Service (NMFS) Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Essential Fish Habitat (EFH)
- [2] US Fish and Wildlife Service (USFWS) Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Marine Mammal Protection Act (MMPA), and Bald and Golden Eagle Protection Act (BGEPA)
- [3] State Historic Preservation Office (SHPO) Section 106 National Historic Preservation Act

Sources: Primary sources for this document were the NMFS Programmatic Biological and Conference Opinion on National Oceanic and Atmospheric Administration Marine Debris Program Activities (OPR-2018-01980); NOAA OR&R Marine Debris Program BE of the derelict fishing vessel F/V *Lady Carolina* from the reef of the Saipan Lagoon (2019, NA17NOS9990010); NMFS 2010 PBO for Pac-SLOPES (Standard Local Operating Procedures for Endangered Species); PIFWO Animal Avoidance and Minimization Measures; the U.S. Coral Reef Task Force Handbook on Coral Reef Impacts: Avoidance, Minimization, Compensatory Mitigation (2016); the NMFS Programmatic EFH Consultation for NOAA MDP Activities (2015); the NOAA MDP Programmatic Environmental Assessment (2013); and discussions and consultations with USFWS, NMFS PRD, and NMFS HCD.
